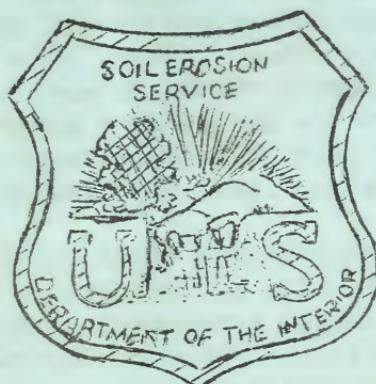


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THE TARHEEL WASHOFF



UNITED STATES DEPARTMENT OF THE INTERIOR
SOIL EROSION SERVICE
NORTH CAROLINA AREA

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HIGH POINT, NORTH CAROLINA
February 15, 1935

HISTORICAL SKETCH OF DEEP RIVER

S. C. Clark

THE WRINKLES AND SCARS of history are carved deep into the lands along Deep River. Today railways, airways and paved highways follow the wagon paths of the historic migrations of Quakers and sturdy pioneers to this section. The beauty of the region, the resources of the forest, and the richness of the soil were the subjects of advertising literature that attracted the attention of substantial families as far away as Scotland and Canada.

ONE COULD TRAVEL DOWN the River from Brown's Mill to Freeman's Mill and everywhere about you the land would unroll a panorama of golden wheat and green corn fields like a richly-coloured Persian Rug. The entire landscape for miles back on either side of the stream was dotted with well-designed, craftsman-built houses, large barns and granaries, housing an intensely religious, deep-thinking, cultured, prosperous people. Fat sleek cattle, matched teams of high-stepping horses and fashionable equipages.

NOW WHAT HAS HAPPENED? Why did this rural life that reached such a high standard of farming excellence that induced peoples to migrate from distant lands to settle here fail -- fail not for a season, but so completely as to remain but a memory in the minds of the older inhabitants of the community? The failure is not because the children of these once-prosperous farm families preferred to come to town -- for no native son of the soil ever prefers that -- but it was because of the blunders of their forefathers in allowing the soil to wash away and butcher the earth.

THOSE PIONEERS ALONG THE RIVER put their faith in the unfailing productivity of the rich

earth. Forests were cleared, fields cultivated year after year in the same crops, drawing the strength out of all the soil that did not wash down the river bed. After a few years they declared the land "farmed to death" and moved to town.

BUT A NEW DAY HAS COME. Our government is taking the leadership in helping the citizens to rebuild this area through the work of the Soil Erosion Service. Today the greatest need in High Point is for all of our people, however diversified in wealth, culture, or occupation, however opposed in their politics and individual interests, to become as one in their united interest, enthusiasm and support of the Deep River Valley Erosion-Control Program.

WHEN OUR FARMERS ARE TAUGHT methods of crop rotation, strip-planting, terracing, sub-soiling and drainage, an agricultural renaissance will come to this region and prosperity will again return to not only our Deep River watershed area, but to all our farmers who have availed themselves of the opportunities afforded by the work of the Soil Erosion Service in the conservation of the soil.

THE TIME MAY BE NEAR when this beautiful country along Deep River will again express itself creatively -- this time by adopting modern scientific methods of farming -- and thus catching the step of progressiveness it lost to its manufacturing neighbors a quarter of a century ago. The road is mucky and the haul is difficult, but if we are to make progress in this section of North Carolina we must all put our shoulders to the wheel and push the old cart of development over the hills of adversity. Hats off to the Soil Erosion Service and a big hand to the officials who are conducting the most revolutionary project this country has ever known.

WITH OUR CONTEMPORARIES

"IT SHOULD BE A MATTER OF PRIDE, when we fall heir to or acquire property, that we pass on that property to the next person in as good or better a state than in which we received it. Plain selfishness and a disregard for the rights of others would be the only reason why any person might say: "I am absolute owner of my ground and will do with it as I please." Such an attitude shows that the individual cares nothing for the welfare of his sons and daughters, or whomever might be the owners of his land after he has passed on.".....Regional Director von Trebra in SOIL EROSION TOPICS (Nebraska), January.

"WHEN SUCH A HIGH PREMIUM is being placed upon efficiency in all lines of human endeavor, it is surprising that the economic waste in lands is permitted to continue.....Idle acres, like idle people, are a menace to our community and national well-being.".....Herbert F. Prescott in MUNICIPAL OR COMMUNITY FORESTS.

"TERRACES MUST BE DESIGNED to meet local conditions. Such factors as slope, climate, soil and cultural practices must be considered. In the more humid regions, the terrace channel must be constructed for maximum capacity, and on comparatively gentle, non-erosive gradients. In establishing a balance between channel capacity and quantity of runoff it is necessary to place the terraces at closer intervals. Consequently, as the land slope increases, the interval between terraces decreases. Soil characteristics influence the design of the terrace system. The ability of soil to absorb water should not generally influence the design to any great extent, since a condition sometimes arises where the surface soil is saturated at the beginning of a heavy rainfall, so that runoff is approximately equivalent to that from an impervious soil."....T. B. Chambers in THE LAND, TODAY & TOMORROW.

WORK OF THE SOILS DEPARTMENT

SOILS SPECIALISTS MAKE a careful survey of each farm, recording their findings on the aerial photograph. The type of soil, degree of slope, amount and character of erosion, and present land use are shown for each part of the farm. In addition, wooded areas are indicated by timber and height classes. Such data, together with the general recommendations of the soils department covering the various conditions found, is used as a basis for working out the farm plan and agreement with the Soil Erosion Service.

TO DATE SURVEYS OF OVER 1500 farms, covering 61,936 acres, have been completed. Our studies show serious erosion in every section of the area except virgin woodlands. Most of the pine-timbered tracts are on soils abandoned due to excessive washing and gullying.

SLOPE IS A VERY IMPORTANT factor influencing soil erosion. Under similar tillage, with increased slope, we have increased erosion. In making the soil erosion survey of this project four slope classes are indicated. The level to undulating areas, with 0% to 3% slope, are in Group A; land from 3% to 7% is in Group B; in Group C are areas from 7% to 12% slope; and all above 12% slope falls in Group D.

WITH PROPER TILLAGE control measures are not often necessary on Group A slope areas. The removal from cultivation of all D slopes is recommended, because control measures cannot adequately cope with erosion on our soils. It is on areas having slopes of between 3% and 12% that crops, tillage and mechanical structures can effectively control erosion.

THE PRINCIPLE SOIL TYPES of the area will be discussed in the next issue of "THE TARHEEL WASHOFF"

TREES AND EROSION CONTROL

ONE OF THE MOST EFFECTIVE methods of preventing excessive runoff of rainfall, and the subsequent loss of soil, is to establish a growth of trees on severely eroded areas. Experiments at Statesville have shown that the average annual loss of soil from bare ground is $65\frac{1}{2}$ tons an acre, while only 2 POUNDS an acre were lost on forested areas.

ASIDE FROM THE CONTROL of erosion, planting trees on the farm makes possible the economic use of small, odd-shaped, or worn-out fields in the production of a crop of considerable future value. In order to fulfill both purposes, the largest number of trees per acre that can make good growth shculd be planted. This condition varies with the species, size and soil type.

PLANTING OF FOREST TREES assumes two different types: first, the reforestation of fields where no present growth exists; and second, spot planting, meaning the increasing of the number of trees on areas where the natural reproduction is sparse.

LOBLOLLY PINES ARE USUALLY planted 5' x 5', 6' x 6' or 7' x 7' in squares or triangles, depending upon the slope, degree of erosion and soil type. Black locust is usually planted 4' x 4', 5' x 5' or 6' x 6', depending on the slope, degree of erosion and the soil type.

IN ALL FOREST TREE PLANTING an attempt should be made to use those species which have a commercial use and which can be easily marketed. The Deep River area is fortunate in being possessed of a great number of wood-using industries which absorb vast quantities of wood products. A survey of these industries shows that a total of 76,316,650 board feet of lumber were used in 1933. Thirty

percent of that amount came from other states, and a considerably larger percentage came from other parts of North Carolina.

THE WOOD INDUSTRIES OF HIGH POINT assure a ready market for any quantity of pine, oak, walnut, cedar, gum, poplar. Black locust is also excellent material for fence posts, and it can usually be utilized for many other purposes about the farm.

THE SOIL EROSION SERVICE has planted in the last six weeks more than 175,000 seedlings, and 4,350 "seed spots" on approximately 200 acres of previously abandoned land, or land that has recently been retired from cultivation. Loblolly pine, black locust and red cedar constitute the greater number of seedlings planted, while the seed of walnut, oak and hickory have been used largely in "spot" plantings.

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PERTINENT PASSAGES

WE ARE ALL VERY CAREFUL to clothe our babies, trim our dogs, mow our lawns, feed our chickens and groom our horses; but when it comes to clothing our terraces, trimming our trees, mowing our meadows, feeding our wildlife and grooming our land, we are all rather niggardly. In temperament mankind is like a hog: He always wants more. When he has eaten all his stomach can hold he then splashes the remainder out of the trough. Likewise, man fails to detect a good thing when he sees it.

WILDLIFE CONSERVATION

AS THE WINTER SEASON ADVANCES the food supply of game birds and other desirable wildlife forms gradually decreases. This is caused in part by the fact that many kinds of seeds and fruits decay and thereby become unsuitable for food. Many of the soybeans and cowpeas have disappeared by January 1st. Other seeds coming in contact with the wet ground will soon perish. Only a few fleshy fruits are capable of weathering the storms.

OTHER FACTORS ENTER INTO the picture. Many fields of ragweed, partridge pea and lespedeza are plowed. This causes countless covies of birds to seek new feeding grounds. It causes a greater concentration of birds on smaller areas, which in turn gives the birds' natural enemies a better chance to take their toll. After a long hunting season it is important that the remaining birds be given consideration.

BIRD FOOD SUPPLY may be preserved in two ways. Of course, no one should expect farmers to leave all their plowing until late Spring. Frequently, however, small strips left along field borders, and little odd corners left undisturbed will carry many birds through critical periods.

IT IS POSSIBLE TO HAVE a good supply of food available even though many of the fields are plowed early. This might be done by planting all odd corners, field borders, gullies and other badly eroded areas with plants which retain their seeds and fruits until the late Winter and early Spring periods, when other foods are naturally scarce.

SOME OF THE SHRUBBY PLANTS suitable for such are privet, buckbrush, sumac and bush lespedezas. These produce both food and cover. The annual and perennial lespedezas, sorghums, partridge peas, teggars ticks, large podded sesbon and benne are good food-producing plants. The lespedezas and partridge peas will grow on badly eroded areas, and in addition to holding the soil, they will build up its fertility.

TOO MUCH ATTENTION CANNOT be given to supplying a well-balanced food supply for the entire year. If the game birds survive through the Winter period in good health, their chances of successfully rearing a brood in the Spring are much better. A chain is just as strong as its weakest link. If we are to develop an erosion-control and land-use program for this area, it is necessary to protect and conserve one of our most valuable assets---WILDLIFE.

OUR GOVERNMENT'S CONTRIBUTION

THE SOIL EROSION SERVICE has received in High Point 354,079 pounds of seed that have been, or will be, distributed among the farmers in the erosion-control area. One million, eleven thousand pounds more (totalling 1,365,079 lbs.) of seed have been requisitioned in order to complete the program. In addition to this, 210,000 pounds of fertilizer have been received and 1,180,000 pounds more (1,390,000 in all) have been ordered for the farmers cooperating with the Soil Erosion Service. Ten million, two hundred thousand pounds of lime have been received and distributed among the farmers and 31,500,000 pounds more (41,700,000 pounds in all) have been requisitioned.

PREPARATION FOR LESPEDEZA, RED CLOVER,
PASTURE GRASS & HAY MIXTURES

THE SEASON FOR PLANTING lespedeza, red clover, pasture grass and hay mixtures is here. In this area seeding as a rule should be done between the 15th of February and the 31st of March. Early sowing of all the above mentioned crops will usually result in a much better crop for the first year. Lespedeza may be seeded safely during the first part of February.

IN PREPARING SOIL FOR SEEDING lespedeza, red clover, pasture mixtures and hay mixtures these suggestions should be followed: If seeding is done on fields that were sown to small grain in the fall, those fields should be gone over with a section harrow before seed is sown. Harrowing will not injure the small grain. Instead, it will afford an excellent seedbed. A covering is not necessary.

WHEN SEEDING IS DONE late in the season, it will be best to broadcast the seed and then go over the fields with a section harrow.

WHEN SEEDING TAKES PLACE on fields sown to Spring oats, the seed should be sown after the oats have seeded. The seed may or may not be brushed in lightly. If seeding is to be done on naked fields, or fields not sown to Spring or Fall grain crops, the following plan should be taken into consideration:

IN EVENT THE LAND has been broken in the Fall or Winter, it should be disked and harrowed until a good firm seedbed is

secured. The seed should then be sown and brushed in very lightly. In cases where farmers have been unable to break their land in the Fall or Winter, it will be best not to break it just before sowing. Fields of this kind should be disked and harrowed, or ripped and harrowed, until a good seedbed is obtained. Then the seed should be sown and covered as above described.

PROPER PREPARATION OF SEEDBEDS for lespedeza, red clover, pasture mixtures and hay mixtures should not be overlooked. Very often farmers are inclined to neglect the preparation of good seedbeds for the crops listed above. And now and then they get good results, but more often poor stands and very poor first year crops are the results of lack of preparation.

THE LATER LESPEDEZA, CLOVER, pasture mixtures and hay mixtures are sown, the more essential it is to cover the seed. Farmers should guard, however, against the covering of seeds too deeply. Deep covering will result in poor stands.

WHEN LAND HAS BEEN PREPARED in the Winter, early seeding may be done when the soil is frozen, which will give an excellent covering to seed when thawing takes place. This is a very fine practice to follow in the sowing of lespedeza.

THE AGRONOMY DEPARTMENT of the Soil Erosion Service will gladly attempt to answer any questions concerning land preparation which the farmers in this area may present before it.

QUESTIONS AND ANSWERS

QUES. How should seedbeds be prepared for growing lespedeza?

ANS. On bare lands or on old fields the land should be disced lightly; on land that has been grown to small grain no preparation is necessary.

QUES. How should lespedeza then be planted?

ANS. It is preferable to drill the seed in. One may broadcast it by hand or with a seeder and cover lightly with a drag harrow, its teeth set at a 45 degree angle.

QUES. What is a good erosion-control crop rotation on a tobacco farm?

ANS. First year, tobacco followed by small grain; Second year, redtop grass sown on grain during early Spring; and Third year, redtop grass sod.

QUES. What preparation is necessary for the planting of Red Clover?

ANS. In case the land has been seeded in wheat, the only preparation necessary is to run the section harrow very lightly over the land the first of February and sow the seed after the harrowing. In case small grain was not sown on the land last year, the land should be disced immediately and then smoothed over with a section harrow just before seeding. Usually no cover is necessary after sowing the seed.

QUES. What is the most prevailing soil type in the Deep River erosion-control area?

ANS. Helena.

DID YOU KNOW THAT....

AN AREA OF 1,041,021 acres of formerly cultivated land in the Piedmont and Mountain counties of North Carolina has been abandoned due to severe erosion?

IN 1925 THE FARM population of North Carolina purchased outside of this state milk products costing \$20,300,000, while hay bought outside the state cost \$10,000,000?

THERE ARE TEN COUNTIES, not including those that are in the federal erosion-control area, that have actually begun erosion work on a practical scale in North Carolina?

APPROXIMATELY A HALF MILLION forest tree seedlings have been allotted to the Soil Erosion Service by the State Department of Conservation and Development for use in the prevention of erosion in the Deep River and Brown Creek areas?

THE AREA OF abandoned land in North Carolina is equal to one-half the size of the area that is under cultivation?

SEDIMENTATION OF SMALL municipal reservoirs in the Piedmont section goes on at the rate of 2% annually, and the large reservoirs are filling at the rate of 1% of their capacities annually?

OVER A THOUSAND FARMERS in the Deep River area have already signed cooperative agreements with the Soil Erosion Service permitting the government to help them in controlling erosion?

THE FASTEST GROWING commercial trees in the erosion-control area are the poplars, including the yellow poplar?

PROTECT AGAINST FIRE

WITH SPRING APPROACHING, farmers are turning to their work of burning off tobacco beds and other general cleaning operations on the farm. A few suggestions for guarding against forest or woods fires therefore seem timely.

A STUDY OF THE CAUSES of forest fires shows that practically all are caused by man. Less than 1% of the forest fires in North Carolina is caused by lightning--the only natural cause of fires.

OF THE MAN-CAUSED FIRES, the majority is the result of carelessness and negligence. Brush burning, or the clearing of the land, and general clearing up of grass and weeds by use of fire are causes each Spring of numerous forest fires. These fires can be prevented by making a few simple preparations before burning. Where tobacco beds, new ground, fence rows or ditch banks are to be burned, a fire line or path 6' to 10' wide should be raked or plowed between the area to be burned and any forest or grass land through which fire can escape. No burning should be done except on calm days, and never in the middle of the day. Burning should be done from the edge of the fire line and away from the woods. It is always advisable to have a number of neighbors on hand to help.

SMOKERS FIRES, CAUSED BY throwing down burning matches, pipe chars and cigar and cigarette stubs and failing to stamp them out, represent the greatest danger to forest lands, and are increasing in number. Forest land owners can best protect their lands from smokers' fires by clearing of all inflammable material a fire line 10' to 20' wide along all roads.

RAILROADS AND LUMBERING OPERATIONS cause a few fires, but the number of these fires is

decreasing annually, as more precautions are taken to prevent fire. Hunters and fishermen who leave "warming fires" without fully extinguishing them also cause many fires.

AMONG THE MISCELLANEOUS CAUSES is washpot fires around which grass and other inflammable material has not been removed for a sufficient distance to prevent a brisk wind from blowing the fire into such material.

AN OUNCE OF FIRE PREVENTION will save many pounds of erosion prevention work. PREVENT FOREST FIRES -- IT PAYS.

THE STAFF OF THE Soil Erosion Service in High Point has been increased by the addition of Linton Carter, who is a specialist in fire prevention work, having spent seven years as a District Forester in the North Carolina Department of Conservation and Development. Mr. Carter will be glad to answer any questions concerning fire prevention work and will advise as to how to establish proper fire-prevention methods in this area.

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YE EDITOR CONFESSES ERROR

In the last issue of the WASHOFF (January), on page three, paragraph seven (right where every body could see it), a gross error is recorded. It is not true that "more than 50% of the cultivated land in the Piedmont area of North Carolina is severely eroded and gullied." It should read: "The area of severely eroded and gullied land in Piedmont North Carolina is equal to one-half the size of the area that is under cultivation." Well, whoever heard of a journalist(?) knowing anything about correct statistics?

WHO IS TO BLAME?

"SOUND PRINCIPLES OF CONSERVATION have been as flagrantly disregarded by our farmers as by our lumbermen. Many a farmer in times past, when there were more fertile public lands to be had for the asking, proceeded systematically to exhaust his soil without troubling himself to safeguard or restore the fertility that year after year was being drained into his corn or his wheat.

"HE WAS LIKE A MAN with a few thousand dollars in the bank who keeps drawing checks against them without every making a deposit. If the farm became incapable of producing crops except at a loss, he would move on to another. That is, he would so long as land was cheap. But it so happened that in many instances the farmer who expected to move on to a new farm, after exhausting his own, found that there was none other available. Others had beaten him to it and he was left to eke out a miserable existance on land that in many instances had become sub-marginal as the result of his own short-sightedness.

"THE AMERICAN FARMER has also been as responsible as has the lumberman for the EROSION which is now recognized as one of the major concerns of the country. There are in this country today literally thousands of farms that have been abandoned to the enemy, EROSION. Farmers have permitted these erosive processes to continue their destructive course, without raising a hand to check them, until only very expensive methods, far beyond the means of the average farmer to employ, hold out any hope of saving what is left of the land."

--Excerpt from The Speech Of Hon. Harold L. Ickes, Secretary of the Interior, at the American Game Conference Banquet in New York, Tuesday, January 22, 1935.....